

In the Claims

1-20. (Cancelled).

21. (Currently Amended) A An ink composition comprising the components:

- (a) a hydrophilic polymer having a number average molecular weight less than 30,000;
 - (b) a hydrophobic polymer having a number average molecular weight more than 40,000;
 - (c) carbon black pigment carrying water-dispersible groups; and
 - (d) liquid medium,
- said composition having a viscosity of less than 20 cp at 20 °C.

22. (Currently amended) An ink ~~A composition~~ according to claim 21 wherein component (a) has a number average molecular weight less than 20,000.

23. (Currently amended) ~~A composition~~ An ink according to claim 21 wherein component (b) has a number average molecular weight greater than 60,000.

24. (Currently added) ~~A composition~~ An ink according to claim 21 wherein component (a) and component (b) are each independently selected from the group consisting of acrylic polymers, polyurethanes and polyesters.

25. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~ claim 21 wherein the hydrophobic polymer comprises a mixture of a hydrophobic acrylic polymer and a hydrophobic polyurethane polymer.

26. (Currently amended) An ink ~~composition~~ according to ~~any one of claims 21 to 24~~ claim 21 wherein the hydrophilic polymer is hydrophilic by virtue of the presence of ionic and/or non-ionic water dispersing groups in the hydrophilic polymer.

27. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~ claim 21 wherein the ink composition has a total concentration of divalent and trivalent metal

ions below 5000 parts per million by weight relative to the total weight of the ~~composition~~
ink.

28. (Cancelled).

29. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~
claim 21 wherein

- ~~(i) the composition has a viscosity less than 100 cp at 20°C;~~
- (ii) the composition has been filtered through a filter having a mean pore size
below 10µm; and
- ~~(iii) the composition has a total concentration of divalent and trivalent metal ions
below 5000 parts per million by weight relative to the total weight of the
composition.~~

30. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~
claim 24 which comprises:

- (i) from 0.1 to 10 parts of component (a);
- (ii) from 0.1 to 10 parts, ~~more preferably 1 to 10 parts~~ of component (b);
- (iii) from 0.1 to 15 parts of component (c); and
- (iv) from 75 to 98 parts of component (d)

wherein all the parts are by weight and the parts by weight of (i) + (ii) + (iii) + (iv) add up to
100.

31. (Cancelled).

32. (Cancelled).

33. (Currently amended) ~~A composition~~ An ink according to claim ~~32~~ 21 wherein the
carbon black pigment carries ionic groups.

34. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~
claim 21 with the proviso that when components (a) and (b) are both acrylic polymers,
components (a) and (b) have been prepared separately.

35. (Currently amended) ~~A composition~~ An ink according to ~~any one of claims 21 to 24~~ claim 21 with the proviso that when components (a) and (b) are both acrylic polymers and component (b) is prepared in the presence of component (a) then the Tg of component (b) is greater than 40°C.
36. (Currently amended) ~~A composition~~ An ink according to claim 35 where the Tg of component (b) is greater than 45°C.
37. (Cancelled).
38. (Currently amended) A process for printing an image on a substrate comprising applying thereto an ink composition according to ~~any one of claims 21 to 24~~ claim 21 by means of an ink-jet printer.
39. (Currently amended) An ink-jet printer cartridge containing a an ink composition according to ~~any one of claims 21 to 24~~ claim 24.
40. (New) An ink composition comprising:
- (a) a hydrophilic polyurethane polymer having a number average molecular weight less than 30,000;
 - (b) a hydrophobic polymer having a number average molecular weight more than 40,000;
 - (c) pigment; and
 - (d) liquid medium,
- said composition having a viscosity of less than 20 cp at 20 °C.
41. (New) An ink according to claim 40 wherein component (a) has a number average molecular weight less than 20,000.
42. (New) An ink according to claim 40 wherein component (b) has a number average molecular weight greater than 60,000.
43. (New) An ink according to claim 40 wherein component (b) is independently selected from the group consisting of acrylic polymers, polyurethanes and polyesters.

44. (New) An ink according to claim 40 wherein the hydrophobic polymer comprises a mixture of hydrophobic acrylic polymer and a hydrophobic polyurethane polymer.
45. (New) An ink according to claim 40 wherein the hydrophilic polyurethane polymer is hydrophilic by virtue of the presence of ionic and/or non-ionic water dispersing groups in the hydrophilic polyurethane polymer.
46. (New) An ink according to claim 40 having a total concentration of divalent and trivalent metal ions below 5000 parts per million by weight relative to the total weight of the ink.
47. (New) An ink according to claim 40 which has been filtered through a filter having a mean pore size below 10 μ m.
48. (New) An ink according to claim 40 which comprises:
- (i) from 0.1 to 10 parts of component (a);
 - (ii) from 0.1 to 10 parts of component (b);
 - (iii) from 0.1 to 15 parts of component (c); and
 - (iv) from 75 to 98 parts of component (d)
- wherein all the parts are by weight and the parts by weight of (i) + (ii) + (iii) + (iv) add up to 100.
49. (New) An ink according to claim 40 wherein the pigment is selected from yellow, red, orange, green, violet, indigo, blue and/or black organic and/or inorganic pigment.
50. (New) An ink according to claim 40 wherein the pigment is a carbon black pigment.
51. (New) An ink according to claim 50 wherein the carbon black pigment carries ionic groups.
52. (New) A process for printing an image on a substrate comprising applying thereto an ink according to claim 40 by means of an ink-jet printer.

53. (New) An ink-jet printer cartridge containing an ink according to claim 40.